

Measuring Children's Capacities

ANNA GILLINGHAM

FUNDAMENTAL human values may sometimes be discovered through scientific evaluation of ability in childhood. The square peg may not necessarily be forced into the round hole, when, with the aid of psychological tests, we find a more constructive way of helping him build a pattern of life. But if tests are to fulfill this tremendous social mission, they must be understood for what they are and what they test. Parents—whose interest is no less valid because they are not technically informed—sometimes misunderstand such findings and their implications. And one must even go so far as to admit that sometimes things far from “scientific” are mistakenly done in the name of “scientific testing.”

In what, then, lies the significance of testing? In its simplest terms it represents a step in the direction of standard data and objective comparison, a step away from prejudiced subjective opinion. If one knows how a thousand children respond to a certain situation, one can more truly evaluate the response of a given child to that situation. The first requisite of adjustment to life work is that we shall know what it is fair to expect. Take, for instance, the case of John who was failing though he could not tell why. He understood as much as he understood; and the rest, well, that was beyond his horizon and so he didn't know that he didn't understand it. It is a clever mind indeed which can evaluate its own difficulties. John's mother said that he was “bright.” All she asked was that he try, and she knew that he would succeed. She admitted, however, that he did lack concentration, and she wished that his teacher would teach him to “concentrate.” His teacher also said that he was lazy and could succeed if he would. She could prove this because last Wednesday she kept him after school and helped him, and found that with her right there he could solve the problem per-

fectly well, which showed that he could do so all the time if only he would. Of course John supposed that his mother and teacher knew what they were talking about and that he was culpable; his childish soul was burdened with a sense of guilt.

The intelligence test showed him to have a mental age two years below the class median. His situation was much what yours would be if you, being of short stature, were trying to watch an exciting game from the midst of a crowd of taller people. For minutes you could not see. Suddenly there would be a wild cheer and with supreme effort you would rise upon your toes just in time to see a home run! You would share the enthusiasm. A few minutes later your tall companion would appeal to you and you would not know what it was all about. He would be irritated because you were not following the game, having proved a while ago that you could see. Mercifully, for our health and sanity, none of us uses all his power all the time. We cannot see the game through on tip toes. Neither can John all the time hold himself up to the level at which his teacher kept him for a few moments of concentrated personal contact. A realization of this fact should cause not only a material readjustment of the child's work, but also a complete shift in the responsibility which can be justly placed upon him in relation to it.

Lester, by way of contrast, was a comfortable, easy-going youth who said that he would like to be a lawyer, although his work was unsatisfactory in all subjects. He guessed he was “too thick,” that's what his father had always told him. At the end of the examination it was possible to assure him that he possessed to a high degree certain mental qualities requisite to success in law—a large and precise vocabulary, unusual power of generalization, remarkable abstract reasoning. The boy was so astonished that he visibly gasped, and as he slowly withdrew

with many backward glances he repeatedly asserted, "Well, I guess it's up to me." Within a fortnight all his teachers noted a change and he passed his college entrance examinations a few weeks later. Perhaps a school's one absolutely immoral act is to allow a pupil to function habitually far below his potentiality.

There are indeed times when an intelligence test enables one to perform a near-miracle. In the first flush of such achievement when the test idea was new, its enthusiasts saw in it the complete reorganization of education. Of education? Nay, a reorganization of society—individuals, classes, even races being permanently assigned to certain levels. This undue enthusiasm was not the fault of the extremely serviceable test but of the vaulting enthusiasm of some of its promoters. Extravagant claims—that a very simple set of questions could, as Galton said, "plumb" mental capacity—have antagonized many persons to the whole test idea. But when this unwarranted extravagance has been discounted, we discover that the essential value of the test remains.

One misleading claim is that a test administered six, ten, twelve, eighteen years after birth can measure *native* ability. It is obvious that the test examines into acquired knowledge, such as vocabulary, number combinations, and an understanding of conditions expressed in colloquial idiom. We are expected to infer the native intelligence from the way in which this material has been assimilated. But it is recognized by most investigators that this inference is entirely valid only when those tested have had common experiences and similar interests.

In Everchanging Patterns

No two *can* have common experiences. Even in the restricted environment of a family circle, age placement, if nothing more, makes every child's experience unique. Pass beyond the home, and there is no limit to the differences in opportunity encountered by the children even in a single school. Scan yet wider fields beyond the common experiences of the city—a New England village, a Pennsylvania mining camp, a Georgia cotton field—and we find children growing up under still greater differences. A teacher in a remote village once asked me to test her brightest pupil, "a little clipper." Although I had observed many evidences of her mental alertness, I found her I Q to be only 84 by the tests. Her eyes shone with eagerness to grasp my problems, but much of my phraseology was strange to her. She had never handled money—her father traded out the value of his crops at the village store—and the Binet coins and change problems

meant nothing to her. Neither did the "comprehension" or "absurdity" questions with their unfamiliar concepts.

This claim that one is testing *native* ability has within recent years carried us to yet more dangerous conclusions. At the very time when anthropologists were giving us voluminous testimony regarding the mental alertness and capacity of all races, and completely disavowing the theory of the physical and mental inferiority of any one race to another, the intelligence testers attempted to establish vast intellectual chasms between the "raw brain stuff" of the races. A test employing the terms and demanding the adjustments of a certain cultural environment was used in an effort to determine innate ability, and those found inferior on this scale were declared of inferior racial stock. For example, the Army tests were said to show that the average Indian or Mexican has less native ability than has the average white man, the average Negro vastly less. Later investigations showed that ability to succeed with the Army test bore direct relation to educational opportunities, and that the Negro of Ohio, Virginia, Illinois and Indiana measured higher than did the white man of Kentucky, Arkansas, North Carolina and Georgia.¹ From time to time surveys of schools in New York City show that the children of the Italian district, the Negro district or the Russian district are inferior to those of American stock, but it is seldom added that the various groups are from homes where there is tremendous disparity in cultural influences.

Professor Colvin says, "The brightest European child reared from birth by a group of African Pygmies would appear as a moron or worse, if later transplanted to a highly civilized and cultural environment²." It is not recorded what opinion the Pygmies would form of the resourcefulness or initiative or comprehensive judgment manifested by a European suddenly tested by an elephant stampede in an African forest!

Although such findings do not gauge native ability, they do tell us something important, provided we are ready to understand it for what it is. If, for instance, the "little clipper" were suddenly placed in a progressive urban school, her 84 I Q would be a most helpful index of the ability with which we should have to reckon *at the moment*. So also, when representatives of various races are combined in any one cultural environment, they bear to each other for a time the relation indicated by the test based on that *environment*.

However strongly we may repudiate the notion of a fixed native endowment which can be measured apart from environmental influences, it remains true

that by the time a child has reached school age his achievement at a given time is a definite thing which can be compared with that of other children. To establish his I Q is of inestimable value in adjusting the child's education to his needs at a given time.

But if we are to make the most of its findings, we must avoid a second dangerous claim—that intelligence develops at a regular rate and the I Q remains constant. If a thousand children are retested after an interval of two or three years there will be little rearrangement in I Q ranking as a whole; but there will always be a considerable number of individuals who change their position very materially. When one of our graduates, who now holds her college degree, was a little fifth grade girl her I Q was 98. The reasonable prognostication was that she would never go to college. During three years in the same home and school she experienced an inexplicable mental awakening. In the seventh grade her I Q was 128.

Sometimes such an awakening can be produced by a deliberate alteration in opportunity, an entirely different home or school environment, or by remedial work carefully planned to overcome special defects. The latter is particularly helpful in case of reading and spelling disability. This results from a condition only recently discovered, regarding which the reader is referred to various articles by Dr. Orton⁸⁻⁷. Many children are reproached for carelessness or excused as mentally retarded because of their reading difficulty which has no relation to general intelligence.

Another sort of remedial work is demanded by the child who has changed schools so often that he has missed fundamental drill. Such a boy with an I Q of 92 was failing in all his work, especially algebra and geometry. He was discouraged, cared little for school, had a vocabulary so meagre that he gained little from reading although there was no disability in word recognition. Diagnostic tests revealed the fact that he was unable to handle fundamental processes with fractions and decimals. During six months of especially intensive teaching in arithmetic and English, his arithmetic achievement advanced $3\frac{1}{2}$ grades on the Stanford scale, and in the same time his I Q went from 92 to 103.

We know that no individual ever attains his potential maximum, and that training can achieve astonishing results. But we must also remember that

with equal training the relative ranking will remain the same. For example, in feats of manual dexterity, rapid calculation and the like, if several subjects are tested and, after being subjected to training, are again tested, the poorest may surpass the score made by the best on the first trial, but meanwhile the best has gone ahead so much faster that their relative position is unaltered. But this analogy cannot be taken too fatalistically in school work.

Removing Mental Barriers

NATURAL readers and spellers have no need of special help; whereas, once the reading disability is overcome, its victims, while perhaps never as rapid readers, reach a degree of excellence good enough for all practical purposes. They can use books to acquire information and then think about the ideas thus acquired just as well as their more rapid classmates. When a mind is hemmed in by reading disability, poor muscular control in writing, faulty habits of study, twisted form concepts, imperfectly mastered memory processes, the removal of the barrier, whatever it is, simply liberates effective thought. To swing round a vicious circle and assert that the barriers exist because the I Q is low is but to preach a modern form of the doctrine of infant damnation.

Again we must remember that the fact that a child's I Q may fluctuate does not alter the fact that year by year it is an index of the child's status quo. And, by and large, we must accept the premise of stability. Marked raising of I Q's is noteworthy because unusual. Extreme lowering would be alarmingly suggestive of brain deterioration. No one can claim infallibility for mental measurement, but no one familiar with the Binet scale can fail to realize the marvelous insight which it affords into certain workings of a child's mind. Often it is true that one can learn more in an hour of testing than in many hours of classroom contact. Harold was a restless boy. He was forever at the teacher's elbow asking

trivial questions, seeking advice which he should have thought out for himself. During the fourth, fifth and sixth grades there seemed to his teachers no reasonable probability that he would ever make good in a college preparatory high school. But all the time Harold registered an I Q of about 140 and the psychologist said, "wait." A man grown, he has for sev-

What Does I Q Mean?

The individual's mental age, as determined by tests, is divided by his chronological age to determine his intelligence quotient—the familiar but not always understood I Q. An I Q of 100 is considered normal; for instance, a child three years old with a mental age of thirty-six months rates 100.

eral years been engaged in research work in a great university where he is respected for his meticulous precision.

The intelligence scale is an instrument so useful that we might disregard undue assumptions regarding it were it not for a third and most dangerous claim, namely that intelligence is a unit quality and that all not possessing this quality are inferior.

The intelligence test is made by academically minded men, holders of degrees, schoolmen of high rank. After painstaking research and statistical standardization they have assembled a group of tests combining with consummate cleverness elements of those verbalistic, abstract qualities which seem to them essential for mental ability. It is extraordinarily effective in testing *the thing which it tests*. If the I Q's which result from the test procedure are ranked they are found to arrange themselves on a normal frequency distribution and show extremely high correlation with school success, present and future. It can be determined with very reasonable assurance that those above a certain mark can probably succeed in college, while those below another mark will probably never go further than the elementary grades. This fact makes the test a most valuable academic, educational tool. There is nothing mysterious about it; that is just what it was made to be.

Different Rather than Inferior

THE fallacy is in the name of the thing tested, a fallacy so great as to render the claim a real presumption. These academic men call this thing *intelligence*, a name used in common speech as the synonym of good sense, so that a stigma at once attaches to a low rating. There is no more insidious danger than the human tendency to confuse *difference* with *inferiority*. A little child asked to define the difference between two objects usually says one is better than the other. To the Greeks, other nations were barbarians. To the civilized man, the Indian of the Plains or the Bedouin of the Desert, perfectly adapted to his environment and able to conduct his own life satisfactorily, appears inferior.

By the same sort of reasoning the educational world has come to regard as inferior all those many other types of ability which function low in the I Q scale and do not succeed in classroom work. From time to time some investigation is made which shows how many of those people who contribute to the practical efficiency or artistic vitality of the world were failures in the academic grind. One cannot blame the father, familiar with his alert, eager little

son grappling with problems of mechanics or social adjustment, for exclaiming in disgust, "They say my boy has a low I Q. I don't take much stock in those tests. My boy's no fool." It is not unusual to discover a child completely failing in his school work who can pass a mechanical test or handle a group of his peers better than his college degreed teacher. Alfred Adler says, "Inferiorities are not to be considered as the source of all evil. Only the situation can determine whether they are assets or liabilities."

Intelligence—Not One but Many

WE are learning to think of intelligence as a word to be pluralized. There are various *intelligences*. Mechanical skill is not to be disparaged in our machine age, nor is the inventor's imagination, nor the manual dexterity necessary to keep the machine at work. Even less in our closely organized group life should we disparage qualities of social leadership and the salesman's ability to persuade others. Musical and artistic contributions need to be fostered in every possible way. But as we advance in the construction of tests for these qualities and arrange our results again on a frequency distribution, we discover that they bear little relation to each other—the highest on one scale may even be lowest on another. The ranking in shop classes frequently reverses that by I Q's.

Not everyone cares to be artistic or mechanical—or even academic—and there would be no great harm done by the academician's claim to distinction if he had not taken to himself the word *intelligence*. Everyone does wish to be considered sensible, and when sense and academic success are made one, the child who does not think with symbols and abstractions finds himself branded as inferior, as unintelligent, instead of being recognized and encouraged as self-respectingly different. Now it is absolutely essential for the development of a child's mind and character that he feel himself adequate. He must be successful in some way. A dull eyed, hapless youth transferred from an uncongenial task to one fitting his abilities is often mysteriously transformed in general characteristics upon which the change would seem to have no bearing. Perfect adaptation does not insure success. No goal is reached without hard labor. What adaptation does insure is that one can confidently and buoyantly meet and vanquish difficulties which would be insurmountable to one who is misplaced. Uncounted children who might have made brilliant contributions have been embittered and dwarfed because they were academic failures and no other possibilities were offered them. What

unspeakable comfort it has afforded many a boy to know that Lindbergh is no scholar!

Now and again there is an individual upon whom the gods have lavished many gifts and who is eager for universal conquest, but these cases are rare and they are largely a law unto themselves; one was named Leonardo da Vinci. Often they are called "Jack of all trades and master of none." Certainly we cannot demand versatility on any level. What we want is to find for each child the thing through which he can best express himself, and then be ready to say, "go to it!"

This goal will never be reached by parents or teachers dominated—however unconsciously—by the academicians. The mother says sweetly, "That is fine," and, gulping, adds bravely, "just as good as going to college," and yet all the while she thinks, "Oh, but I do wish he could go." The child meanwhile, senses the regret and is paralyzed by it. There are few cruelties more subtle than that of the human adult in dire determination to educate its young. We need to recognize that excellence is not a single quality, but has many, and equally precious parts.

The Ounce of Prevention

Testing the preschool child is very helpful in preventing possible difficulties and in putting the child's future training on a more positive level.

RACHEL STUTSMAN

TO many parents the mental test is a mysterious procedure which they impose upon their children only under stress of circumstance, and then with great reluctance. In many cases parents think of the mental examination as comparable to a severe physiological test, with disagreeable jack-in-the-box surprises calculated to analyze their children's brains. I have heard parents say from real consideration of their children's personalities, "I would not take a mental test. I do not want anyone to discover my mental dullness. Why, then, should I submit my child to the ordeal?"

A young mother approached the psychological laboratory with a determined, though anxious face. She held tightly by the hand her four-year-old son George, who lagged in painful anticipation of a dis-

¹The Unity of the Race.

By Arthur L. Weatherly. *National Federation of Religious Liberals.*

²Mental Tests and Linguistic Ability.

By Stephen S. Colvin and Richard D. Allen. *Journal of Educational Psychology.* Vol. 14. pp. 1-20. January 1923.

³The Neurological Basis of Elementary Education.

By Samuel T. Orton. *Archives of Neurology and Psychiatry.* Vol. 21. pp. 641-646. March 1928.

⁴Neurological Studies of Some Educational Deviates from Iowa Schools.

By Samuel T. Orton. *Journal of Iowa State Medical Society.* April 1929.

⁵A Physiological Theory of Reading Disability and Stuttering in Children.

By Samuel T. Orton. *New England Journal of Medicine.* Vol. 199. No. 21. pp. 1046-1052. November 1928.

⁶Specific Reading Disability—Strophosymbolia.

By Samuel T. Orton. *The Journal of the American Medical Association.* Vol. 90. pp. 1095-1099. April 1928.

⁷"Word-Blindness" in School Children.

By Samuel T. Orton. *Archives of Neurology and Psychiatry.* Vol. 14. pp. 581-615. November 1925.

agreeable experience. With reluctance George went with one psychologist while the mother had a talk with another about the child and her problems. The boy was given a sequence of games, picture puzzles and blocks, and the undivided and sympathetic attention of an adult thoroughly trained in the understanding of young children. Soon all his strain and apprehension vanished and he laughed and talked freely. The test was over for him all too soon. When it was suggested that perhaps his mother was through with her interview and ready to see him he readily acquiesced, but suddenly had a disturbing thought. He hesitated and at last said with a great effort, "But when am I going to have the mental test?" With such a preparation it is a wonder that there was not a real struggle to persuade George to

cooperate long enough to find out that the mental test was a harmless and enjoyable affair.

However, the mere fact that the mental test for young children involves only a pleasurable experience is not sufficient to recommend it for all or most preschool children. There must be fundamental reasons. What does the mental test contribute to our understanding of young children? What value does it have in our planning for their lives?

Why Tests?

IN certain obvious needs, as of objective evidence of a sufficient mental level in a child to warrant adoption, there is little question. In the majority of cases such a decision can be made with high reliability. Where there are brain injuries the mental test is an inseparable part of the neurological diagnosis in determining the extent and character of the injury. The despairing, heartsick parents of a mentally defective child, once they have discovered the child's disability, are eager for the help the mental test can give. Often they visit many psychological clinics and compare many diagnoses, much as parents of children with other types of defects do, always hoping that something can be done about the difficulty. Sad to say, little hope can be given for the relief of defective children in our present state of knowledge. Here indeed there is need for much research, for undoubtedly there are ways of improving many of these cases if we only knew how.

But granted that mental tests are of value in cases of mental defect, of what value are they for normal children? In response one may ask, who is there who does not profit by a knowledge of conditions and situations in any of the affairs of life? There are few instances in which ignorance is really bliss. If one has a dull normal child it is well to know it early to avoid building up impossible dreams for his achievement. There is no more unfortunate condition for a human being than that of trying to live up to standards and attainments far beyond his ability.

Consider the case of Billy. He is scolded for the low grades he brings home, he is shamed for his lack of effort and compared disparagingly with his sister, two years younger, who has caught up with him in school. His parents hope that Bill will be a doctor, like his father. It was not always quite like this with Bill. When he was of preschool age his parents considered him a wonder and "showed him off" with pride, laughing over all his cunning remarks. Now they are chagrined with his slowness, and they let him feel their chagrin in many thought-

less ways. Bill is hurt and puzzled. He accepts it as a fact that he is not good for much. He really tries, though his parents do not realize it. He knows he is not as bright as some of his classmates, but there are many others who do not do better in school than he does. He likes to play with the other boys, though he is never the leader. His parents continue to say that when he is a doctor like his father he will be sorry that he did not work harder. Deep in his heart Bill knows he does not want to be a doctor. He can think of nothing he would like better than to be a garage man. He has a great interest in automobiles, yet he dares not mention any of this to his parents. Many are the scars that have been made in Bill's personality. He has developed a habit of bed wetting. He spends much of his time day-dreaming. These habits distress the parents and upset their relationship with the son still more. If Bill's parents had been told when he was small that he was a dull average boy, with good mechanical ability, much of his present difficulties would have been avoided. His parents would have known that they should never have planned for him to follow in his father's footsteps.

The Dangers of Comparison

TESTS may reveal many other characteristics besides the actual intellectual level of the child. This is now possible with tests for preschool children and will become increasingly so as research along these lines matures. As the special qualities of personality of the child are revealed to the parent or teacher, less need is found to compare him with other children. This is as true at school as at home. Alice furnishes an example. She is a large, awkward three-year-old with a marked convergent squint. Glasses fail to enhance her rather inferior claims to physical attractiveness. The teachers in the nursery school she attends felt at first that she was very dull. They compared her with other children of the same size and said, "Alice will never set the world on fire." Then Alice was given a mental test. The results showed superior mental ability. "Impossible!" exclaimed the nursery school teacher, "Just compare her with the other children she is playing with." "You must remember," the psychologist explained, "that Alice is only three years and four months old and those children she is playing with are all four years old." Even in the nursery school, where understanding treatment of individual personalities is the rule, such errors in comparison are likely to creep in without the aid of the mental test.

The mental test often reveals unsuspected abilities in children. Even parents who feel that their children are doing very satisfactorily are likely to find this true. Mrs. A knew that her younger son Alfred was brighter than his brother Eric because she had observed the two together and the contrast was obvious. What Mrs. A did not know was that Eric had unusual skill in using pencil and scissors and colors, as the mental test revealed. Mrs. Y has two older daughters, both superior and lovely children, and a younger son, Jack, the pride of her life. He is a handsome, robust four-year-old. Since the other children are older and girls, they offer no satisfactory means of comparison, and Mrs. Y has, therefore, not suspected that Jack is of only average mental ability, though he possesses great social charm and a talent for chattering glibly. "It makes a difference for me to know this," she said. "I shall now be able to plan much more intelligently for Jack's future."

Parental errors in judging the mental ability of children are not always in the direction of thinking the child brighter than he actually is. One young couple had a little girl two years and ten months old—their only child. They used baby talk in speak-

ing to her and dressed and cared for her as if she were eighteen months of age instead of almost three years. Muriel was challenged by the mental test. She altered her babyish behavior to meet the problems presented. She went through both the Stanford-Binet test and the Merrill-Palmer test with expedition and zest and with so much ability that it was difficult to identify her with the infantile person she appeared when with her parents. She had a mental level of nearly five years on both types of tests. This information was a surprise and a help to her parents, who had thought of her as a baby and had ignored any consideration of her mental ability.

Thus, aside from their great value in diagnosing mental defect and determining adoptability, mental tests are helpful in determining the mental level and the special abilities and disabilities of the normal child. Once we have some knowledge of the child's capacities we can evaluate his strengths and weaknesses and his needs, and understand and accept his unique qualities as an individual. The earlier we are able to size up these characteristics and act upon our knowledge, the better able are we to help the child to achieve a healthy, well-balanced personality.

Performance Tests— What Are They?

To supplement measurements dependent on handling of words, tests based on the ability to handle materials have been devised.

BETH L. WELLMAN

PERFORMANCE tests have been used extensively as one means of measuring the general intelligence of children of all ages from early infancy on. The term is usually applied to those tests to which the child responds by doing or "performing" something, in contrast with those tests to which he responds verbally (either orally or by writing his answer).

Scales of performance tests first grew out of a need for some means of measuring the mental ability of children who were handicapped in verbal expression, such as the deaf, children with foreign-born parents who spoke their native language in their homes, children whose language environment was restricted and meagre, and those with marked

speech defects. Even with normally developed children under good environmental conditions, however, the tests have proved to furnish valuable information supplementary to the more verbal measures of general intelligence.

Recently performance tests have been so simplified that children of the preschool ages can also be tested. They have been found unusually useful with young children because of the attractiveness of the material, and because it is easier to gain the cooperation of younger children when they are asked to do something with their hands than when they are asked to answer questions.

The two most widely used scales of performance tests are the Pintner and Paterson scale for children

five years of age and older, and the Merrill-Palmer scale, prepared by Rachel Stutsman,* for children from two to five years of age. Recently, the Pintner and Paterson scale has been revised and extended by Grace Arthur. In addition to these, single performance tests or a series not combined in a scale have been devised and used by numerous investigators. A bibliography compiled on the uses of the form board in the mental measurement of children lists ninety separate investigations.†

What Performance Tests Really Are

Most performance tests are of the form board variety, that is, wooden boards from which blocks of various forms have been cut, or various kinds of picture puzzles. Form boards have been classified by Newell into eight groups on the basis of the problem presented for solution and the ability upon which the solution depends.

Picture Form Boards.—A picture has been pasted on a board, and from this various forms have been cut. The difference in the size and shape of the pieces and the background of the picture serve as guides to the correct solution. An understanding of the meaning of the picture is not essential to a correct solution, since the blocks can be placed according to their irregular forms. In fact, young children sometimes have indicated by their remarks and exclamations that they were unaware until they had successfully completed it that the product would be a unified picture.

Picture Completion Form Boards.—These consist of pictures from which blocks have been cut, but the blocks are all of the same shape and size. To complicate the problem, many additional pieces are presented from which the correct pieces must be selected for placement. The choice depends upon the understanding of the situation in the picture, since the shape and size of the blocks and the background contiguous to the holes give no clue to the correct choice. Picture completion form boards have been developed to cover such a wide range of ability that it is possible for a five-year-old child to succeed on one and for the ability of a superior adult to be taxed on another.

Picture Puzzles.—In the picture puzzle form boards the pictures have been cut into a number of pieces which, when fitted together, form a complete picture. Some are cut along straight lines, and some into irregular pieces, and some are pro-

vided with frames into which the pieces are to be fitted. The simplest kind for very young children consists of two irregular pieces to be fitted together.

Form Boards with Geometrical Insets.—Blocks of geometrical shapes are cut from a plain wooden board. Each block fits into a depression of the same shape. This has been one of the most widely used types of form boards. The number of depressions varies from two or three to ten or twelve.

Construction Form Boards.—In these boards the blocks have been cut apart and the pieces must be put together to fill the recess. The simpler ones have only two parts cut straight, while the more complex have three or four blocks cut diagonally so that one or more of the pieces must be turned over to make them fit. This more complex kind tests ability well up in the school years.

Cylinders.—Cylinders varying in height only, in diameter only, or in both height and diameter are placed in corresponding depressions.

Peg Form Boards.—Instead of blocks, long pegs of various shapes are placed in depressions corresponding in shape.

Form Board Tests of Apperception.—To solve this type of form board correctly there must be perception of a relationship between the parts. For instance, separate pieces of wood representing the body, head, arms and legs of a manikin must be assembled in their proper relationships.

Many performance tests not of the form board type have been used with young children. Examples of these are building towers of blocks, copying figures, punching out perforated holes in a sheet of paper, matching colors, stringing beads and buttoning large buttons.

The results obtained from a series of performance tests seem to give a fairly reliable indication of the intelligence of the individual. While in general the results agree with those obtained from other means of measuring intelligence, there are certain types of individuals who do better on the performance type of test. It is well, therefore, for an all-round picture, to use both where possible.

What seems to be one of the chief drawbacks to existing performance tests for very young children and for children from rural communities is that speed in accomplishing the separate tasks often constitutes the score. It remains for further study to determine whether the tests have been over-weighted in this direction. If so, other tests can be tried out and substituted for them. It is quite possible that such emphasis is entirely justified and that speed of action is an important distinguishing characteristic of the more intelligent child.

* See p. 7 of this issue for article by Rachel Stutsman.

† Newell, Constance D. The Uses of the Form Board in the Mental Measurement of Children. *Psychol. Bull.*, 1931, XXVIII, pp. 309-318.

What Is Musical Ability?

Aptitudes for music are not found in a single unified talent but in a number of factors which may appear in many different combinations in individual children.

C. E. SEASHORE

MUSICAL talent lends itself readily to measurement. The methods of measuring it have developed in a different way from the well known intelligence and personality tests, in that they emphasize the measurement of specific talents. The original and still most used measures available in the home and in the school are known as the Seashore Measures of Musical Talent.* These may be used by teachers or parents who have a general knowledge of the significance of mental tests, and since they do not involve language, home and community contests may be and frequently are conducted with them—even in the Fiji Islands.

Musical talent is not one, but a hierarchy of talents, the presence or absence of which determines the character of the future musician. The question therefore is not, "Is the child musical?" but, "What type of musical talent does he present, and what degree in each of these types?"

Strong talent for music usually manifests itself very early to the intelligent observer of the child through his natural exhibition of ability. For example, the sense of pitch and musical memory for tone may be observed in the spontaneous song of the child and later in the natural facility with the violin. Musical imagination and creative power, if present, appear very early and spontaneously. The sense of rhythm may be observed in the second year by the spontaneous rhythmic response to music. A general craving or dislike for music can, of course, be discovered early in a musical environment, though observations on that point are often unsafe and very misleading.

These measures of musical talent may be used in the home or in school after the intelligent child is ten years old. Many other measurements now avail-

able may also be made where a trained experimenter is interested in extensive analysis. In our laboratory studio, for example, the number of measurements made may run as high as thirty or forty, depending upon the importance of the determination of talent.

Fitting the Opportunity to the Child

In general I should say wherever family resources permit, the young child should be given a musical environment. This should include opportunities for outlets at the child's own level through which his capacity for musical feeling and hearing may develop naturally. Formal training in instruments should not be begun too early. It is a grievous mistake to develop precocity in the musically minded child. While we may succeed in producing a musical freak, it is done at the expense of a well balanced personality and sometimes makes an unnatural drain upon nervous energy. The normal child who begins piano lessons at eight or ten will very soon catch up with the child of equal ability who began lessons at five. The earlier years are spent to much better advantage in spontaneous activities, whether music or play or semi-play.

The parent and music teacher may determine with reasonable precision at the age of ten what kind of talent or talents the child possesses, and determine the program of training in large part in terms of the degree of talent possessed. Such an analysis may be repeated at successive stages in the musical development. When this is done, we shall accomplish an enormous saving by giving a musical education and opportunities to the child in proportion to his capacity for profiting thereby. This policy has a negative and a positive side. It places the investment where it will pay in terms of happiness and success, and it abstains from try-

* The necessary material for the use of these measures consists of six double disc phonograph records, a manual of instructions, record blanks, and a monograph containing a critical review of the literature on the subject up to date. These are obtainable from the C. H. Stoelting Co., 424 N. Homan Avenue, Chicago, at a cost of about \$10.

ing to make gold out of iron by forcing conventional training upon the untalented. This relief for the untalented is often a means of discovering exceptional talent in other directions and thus adding to the joy and richness of life. Talent tests often serve to discover latent gifts.

Parents should understand that it is no discredit to a child not to be musically gifted. Certain types of musical gift are a liability and there are many other lines for artistic development in which the child may find a natural outlet for artistic pleasure and self-expression.

Character Rating

Moral traits cannot be measured by any simple rule-of-thumb; for character is even more complex than intelligence.

EDWIN D. STARBUCK

FOR fairly indiscriminate use by teachers with their pupils and parents with children, testing and rating of "character" are not desirable. It is well for the relationship existing between youngsters and the grown-ups about them to be very human, natural and personal. To analyze, dissect and pigeonhole children tends in the direction of that which is mechanical and artificial. There is nothing quite worth while in the moral life over and above what arises from the intimate, spontaneous and graceful interplay of life upon life. The supreme joy in contacts with childhood is to feel the flowering of the child's personality. If one is rude with the petals, the blossom will close.

This is why the situation is more difficult in matters of character than of mental capacities. The cases are different, for mental skills have to do with particular performances which may be taken as a game, while character analysis opens up the intimate recesses of the heart. It will not bless the child particularly and will certainly not advance science to trespass the holy places.

Yet testings and ratings, when done on the right occasion and by the right person, are as important to the moral life as is the work of a physician, and sometimes a surgeon, to bodily well being. No set rule for or against will suffice. The mass of children distribute themselves from one extreme to another through a countless number of serial orders, from the inhibited to the overexpressive, from the self-regardful to the self-effacing, from the oversensuous to the ascetic, from the meticulously thoughtful to the rash, and so on endlessly. The bulk of them are normal and for normal children the weight of virtue is on the side of letting them alone. But when a child has become a real problem to himself and to

others it is iniquitous not to rate and analyze his qualities and characteristics, in his own behalf.

One other caution. Although occasionally character testing and rating may be desirable first steps toward the treatment of an ill, they will avail nothing except by the full and spontaneous wish of the child. When there is an earnest wish on the part of a child, normal or otherwise, for an opportunity to lay bare to himself the inner workings of his mind and heart, it should be gratified. Then if the passion of self-analysis shows signs of becoming chronic, it is time to enter upon creative activity.

Moral ratings and testings are not only undesirable for general use; they are impracticable. None of the test devices and rating schemes that are beaten together and sold to the innocent nor all of them rolled together are safe measures of "character." Personality is so intricate and involved and so changing as it meets the endless variety of life situations that no snapshot nor any number of them can portray it accurately or adequately. It requires a patient, tactful and well trained person to interpret with any degree of correctness the different snapshots that come from testing devices.

Circumstances Alter Characters

GRANTING the difficulty, can one test *traits* of character? Again the answer is an emphatic no! Traits depend upon the situations, and these are always different. A child may be kind to his pet and cruel to his sister, courteous at school and brusque at home. Dr. Slaght in his excellent study on children's propensity to lie had to survey the school children in three towns before finding about thirty-five who lied three times straight in

meeting three different temptations to prevaricate, and an equal number who met the same temptations and told the truth consistently three times out of three possibilities. Most of the youngsters would tell the truth on one occasion and lie on another. This fact has come out in the work of Trow, of Moore and Gilliland, of May and Hartshorne and a good many other students. The safe slogan now is, *moral traits are special and not general*, a precept as valuable for the practice as for the science of character training.

Impossible Requests

THIS insistence against promiscuous moral rating may seem to be a strange note from one who is much engaged in the creation and use of tests. Almost any mail brings an inquiry after a usable test device for measuring character. The answer is invariably that we have none to recommend and shall probably never develop any for general use. The explanation of the seeming inconsistency is a simple one. Objective tests can with patience be constructed by any thoughtful person; and when used in constellations or batteries, they will show drifts or drives or tendencies of attitude or conduct. These tests are, however, only pertinent to the problem being studied and have no necessary significance for the interpretation of any person's "character" as a whole. It is one thing to judge a child's character and stick him into some niche in a scale of excellence, and it may be quite another matter to study scientifically the cause and conditions of a specific kind of misbehavior in that same child.

It is possible to differentiate certain moral types and therefore to study them in comparison with total populations, or in contrast with their opposites, or to use the results in following through certain genetic traits in childhood. Howells was able to separate sharply the positives and negatives among five hundred students with respect to their acceptance or rejection of certain religious doctrines. Having done so, he was able to show the setting of this differentiation in the total picture of mentality. While this study is powerful in giving fresh insight into the meaning of social compliance, as against antipathy, with respect to religion, it says nothing conclusively about conservatism and radicalism in general and certainly it does not make any suggestion, even remotely, about the moral superiority or inferiority of any person involved.

A test or a set of tests is applicable fundamentally only to its own special segment of life, or field of

mentality. Many of the devices now available are usable or helpful in attaining the purposes for which they were built up. It would be quite beyond the range of this brief discussion to evaluate or even to catalogue them. A convenient reference for those desirous of following it through would be the critical and helpful volume of G. B. Watson, *Experimentation and Measurement in Religious Education*. The most compendious presentation of test devices is that found in the three volumes of Hartshorne and May, *Studies in Deceit*, *Studies in Service and Self-Control*, and *Studies in the Organization of Character*. A critical presentation of the most recent studies in the field of personality is found in an article by Allport and Vernon which appeared in the December, 1930, issue of the *Psychological Bulletin*.

Though the number of tests devised by different students in tackling specific problems is baffling, the outlook is hopeful for there is rapid improvement in techniques, in their application to special problems, and in methods of computation. The relationship between a good test or rating device and a poor one is becoming progressively more clear.

Testing the Tests

AMONG the marks of excellence are:

(1) A personality test should be objective and ratings should be based upon objective data. Ratings derived from mere descriptive evidence are fast passing. One does not merely ask a child whether or not he lies or deceives. The concrete evidence is found by his conduct, usually without his awareness; nor is a teacher's mere opinion about moral traits and attitudes taken as significant unless it can be objectively demonstrated that the judgments are sound.

(2) Valuable tests are based upon units of measure of conduct or attitude. Measuring sticks are just as important in estimates of personality as in measuring distances on the surface of the earth. These units may be real units as shown in some laboratory experiment or achievement, or they may be ideal units representing definite steps between related concepts or ideas.

(3) Since traits are special and not general a good test will center around trait or attitude constellations or groupings of items demonstrated to have a high correlation among themselves.

(4) A good moral test usually conceals the object toward which it is directed.

(5) A good test is simply and easily grasped.

(6) A good test, being objective and based upon quantitative data, should be announced to the public only after ample demonstration of its reliability. It

requires usually months, if not years, to test a test. It is fair to say that most of the devices that are announced for general use give no adequate evidence of their trustworthiness.

Moral testing and rating devices, for the most part, should be considered at the present time as the tools and techniques for the research student rather

than for the school or home. They are destined to open up an insight into the growing life of childhood, much as botanists have little by little furnished an insight into the needs and hungers of plants for the sake of their propagation. But this insight will be a slow growth as the direct result of patient, technical work.

Finding a Vocation Through Tests

Natural aptitude plus training is the objective of presentday education in preparing youth to meet the world.

JOHN L. STENQUIST

IF a class of typical twelve-year-old boys be given the parts of a disassembled bicycle bell, a simple door lock and a mouse trap miscellaneously assorted, and told to "put each thing together the way it ought to go," we find the most proficient boy is likely to complete the task in from one-third to one-tenth the time required by the least proficient. If the task be that of sticking small pins into holes in a block, or reassembling the parts of a cube of wood which has been jig-sawed into a miscellany of irregular shapes, or even so simple a task as tapping with a pencil on paper at top speed for say twenty seconds, or drawing a line through every letter "e" which appears on this page—in any such task we invariably find that children are not alike. On the contrary they differ sharply from each other. This is true for nearly all skills. This fact is too obvious to need emphasis; yet it is habitually forgotten or ignored.

We reason, "If Mrs. Jones can drive a car, why can't I?" The answer is, of course, precisely that you are not Mrs. Jones. Because most persons can acquire sufficient skill to drive a car, hit a golf ball or deport themselves passably at the governor's reception, we assume "anybody can do it, provided only he learns how." But we forget that some have dominant native abilities or "knacks"; that some are "to the manner born" quite as surely as that some have blue eyes and others brown.

The assumption is all too frequent that *training*, if only we have enough of it and the right kind, will overcome such lacks. But we should realize that while training will as a rule increase

our skill in nearly any task, it does not eliminate individual differences. Training plus native talent produces enormously greater results than training where there is little or no native talent. Fortunately, most of the techniques of ordinary life in a civilized society can be acquired sufficiently well by training so that we "get by." Nearly all persons learn to read sufficiently well at least to be able to follow the funny page and to understand danger signs; to write legibly enough to make themselves at least partially understood in a letter; to understand music well enough to be able to march in step; to master a motor car sufficiently to obtain and retain an operator's license. But only a few are expert readers, expert penmen, artistic dancers or expert motor car operators. The difference between the expert and those who "get by" is very, very great despite any amount of training.

It is, however, in the merciless competition of vocational life that individual differences are of greatest significance. The vocational guidance movement which has developed in our schools during the past two decades rests on the assumption that each child in school has strong points and weak points—and in so far as vocation is concerned it is of great importance that the choice permits the maximum of native talent to be utilized, since no amount of training can compete with native ability plus the same training.

The fascinating notion that it should be possible to find a magic foot rule by which one may measure a child's mental and physical make-up and then prescribe his future vocation is not new. From time

immemorial fortune tellers, phrenologists, physiognomists and fakers of all descriptions have found an eager clientele among persons wrestling with the problem of vocational choice. During the past decade the newly invented techniques of mental measurement have very naturally been hard pressed by popular demand to answer this age old problem. But the facts are that while tests are extremely useful instruments, there is no single test or trick by which a child's vocation can be selected. Mental tests—all the vast array of intelligence tests, special aptitude tests, trade tests, school achievement tests, innumerable tests common to every psychological laboratory, and the intricate techniques involved in test construction and the use of tests—all this can help in vocational guidance, not in any magic fashion but in the same way that instruments make possible effective surgery or engineering.

It is possible to obtain measures of the general mechanical aptitude, or aptitude in clerical tasks; to measure a number of trade skills such as those involved in machine shops or in typing, in spelling, dictation and so on. A large number of specific job "fitness" tests, such, for example, as for policeman, chauffeur or special machine operator, are available. Scientifically devised tests are now used by the better colleges to yield a far more significant college entrance rating than has formerly been available. Whether a student is likely to succeed or fail in high school or in college can now be predicted, not infallibly, but with far greater certainty than prior to the use of tests. On the basis of tests now available, a student entering high school can be told with considerable precision whether his chances are best in a technical, commercial or academic high school course.

And yet despite all this, it may truly be said that there is no test that will answer the question, "What vocation should my boy choose?" For the problem is far too involved to be so simply solved. Vocational tests are useful as instruments in the hands of trained persons; but tests by themselves have no more value than other instruments of science.

The Measure of Manhood

AN answer to a question of vocational choice can only come as the result of matured expert judgment, based on the combined cumulative facts of each pupil's life, especially his school career. There is no "push button" method of selecting a child's vocational career. In education as in medicine or engineering we have in tests new in-

struments of precision, but these serve in large part to reveal more problems, rather than magically to yield a ready made answer to the original one.

Since tests now available can show clearly the strong and weak points of a boy or girl throughout a school career, it would seem the part of good sense to begin with these facts in guidance. But the many other factors, interests, motives, home conditions, opportunities, claims of rival abilities within the same person, all seem to be involved in vocational guidance worthy of the name.

The intelligent parent will, I believe, more and more demand to know how his child rates in both specific and general skills as determined by qualified mental examiners. The child himself, particularly as he approaches adolescence and maturity, can greatly strengthen his judgments of his own abilities if ratings are based on impartial and scientific tests which are not prejudiced by personal opinion.

Charting Known Lines of Achievement

THE value of any specific vocational test depends directly upon its scientific development. By this is meant the skill with which it has been devised and particularly in how far its reliability and validity have been proven. Truly significant tests rarely if ever involve any trick element. Often they are but samples of common though very specific tasks, so devised that exactly the same problems under exactly the same conditions can be tried out on thousands of cases, and the results studied. The task of interpreting the meaning of the scores earned on any given test or series of tests is the work of the trained psychologist, and the validity of the conclusions drawn from test results is directly proportional to his skill, rather than to the tests.

The better school systems throughout the country are more and more utilizing standardized tests of school achievement, intelligence and vocational aptitude. Most cities have in charge of this work persons specially trained for it. Some cities have co-operative arrangements with psychological laboratories where children may be tested with considerable thoroughness from time to time. It is becoming increasingly apparent that it is a child's cumulative record which is to be trusted rather than any single test performance. A sound knowledge of statistics and psychological procedures is necessary to avoid the pitfalls and to gain the benefits of all forms of mental tests. When utilized under these conditions they promise a very great forward step in the efficiency with which we guide youth toward well adjusted adult lives.

Where School and College Meet

Changing requirements for college entrance indicate a vital growth in our whole educational system.

L. THOMAS HOPKINS

THE water in the college entrance pond is decidedly muddy and unsettled, making clear vision for any distance almost impossible. It is being agitated by high school students, teachers and principals, parents, progressive educators, college admission officers, and many others. It is difficult to forecast when the water will clear, or what an examination of the bottom will reveal.

An important approach to the solution of the college entrance problem is to examine the tendencies in admission requirements as they have developed during the past two decades. Since 1910 there has been a steady decrease in the number of prescribed units, so that in 1928 the average was eight out of an original fifteen. Conversely, an increase in the number of free elective units has been accompanied by an increase in the range of subjects accepted, varying from approximately thirty in 1911 to over sixty in 1928. The increase in the number of elective subjects has allowed for greater consideration of the student who has demonstrated his well defined, serious purposes and his ability to work successfully within his field of interest.

Departing from the fact-information tests in individual subjects of twenty years ago, the college entrance board examinations, beginning in 1916, were made comprehensive; these in turn are now being superseded by more general "power" tests in the chosen fields. The intelligence test, given great importance ten years ago, has less weight today as a single instrument but is combined with other measures to determine individual capacity. In a few instances pupils of superior intelligence are admitted regardless of the subjects studied in high school. Overemphasis upon admission by examination is still maintained only by a few colleges.

The accredited institution plan, begun in the early part of the century, has increased from 6,000 schools in 1913 to 18,174 in 1930. Of 32,717 students who entered college in the fall of 1927, 73 per cent were admitted by certificate. There is

a steady increase in the tendency to give more consideration to the high school record. The emphasis of colleges upon the position of the applicant in his graduating class, such as in the upper quarter or the upper two-thirds, and their demand for some evidence of demonstrated ability have led to great improvements in high school record keeping.

A recent revival of an ancient custom is evident in the tendency to lay increased emphasis upon the personality of the applicant, as revealed by his rating on personality scales, the chief items of which are leadership, moral character, diligence, intellectual honesty and curiosity. Mature students twenty years of age or over with strong personal qualifications and with serious purpose, but not necessarily with high school graduation or complete college preparation, will be admitted by an increasing number of colleges without certificate or examination.

Some state institutions admit graduates from high schools within the state on high school diplomas. These high schools, contrariwise, are coming to prepare for college only those who actually intend to go, allowing others to follow a wider selection of studies.

These gradual changes over two decades lead one to conclude that in the not distant future there will be a new plan for admitting to college only those students who show evidences of:

(1) Three or four years of work of secondary grade with no designated number of units and no prescribed subjects. The individual program will be determined in the light of the student's interests and needs and with effective guidance from the high school counselor. (The number of years will depend upon whether the high school remains a four-year unit or whether it is reduced to three years to correspond with the three-year junior high school.)

(2) A well defined, serious interest. Many potent interests of entering college students are either not encouraged or directly killed by archaic prescriptions for a degree or by the narrow cur-

riculum. The tendency to reduce basic subjects and show more liberality of choice is a forward step.

(3) Demonstrated ability to work successfully in the field of individual interest as evidenced by their high school record, report of the principal or a power examination, all of these measures to be agreed upon between the colleges and secondary schools, with the responsibility for their definition and administration resting upon the latter. This is in accord with the general tendency to give the high school more control in judging achievement.

(4) Requisite general intelligence, emotional stability and social insight. This presupposes a balanced secondary school curriculum with less emphasis upon the academic subjects, and an opportunity in college to continue to grow normally.

All these tendencies reveal a shifting point of view as to who should go to college. The old institution—admitting only a few students with high academic intelligence and success in passing examinations upon materials in academic subjects prescribed as admission hurdles—will eventually pass, and the new institution will welcome in increasing

numbers students with serious purposes, deep interests, real ability and capacity for continued growth. Certain endowed institutions may be little affected by these changes since they are in a position to select whomever they wish upon whatever basis they desire. This means that some individuals preparing for particular colleges must meet personal problems bearing little relation to general trends.

Through these changes colleges may expect better students, higher standards of scholarship and a more intelligent selection of subjects and activities. In fact, they may look forward to the opportunity to redefine their real fields of educational service, while students may expect the opportunity to obtain a genuine education related to their life problems.

When the mud in the college entrance pond clears and the light of cooperative consideration of major problems in the interests of the learner begins to penetrate the water, there will be revealed just under the surface the healthy growth of a new, vigorous plant, about to push up into the daylight from its roots and stem a new institution—a modern high school integrated with an improved college.

What Can We Do About It?

Parents want to know how they can utilize the psychologist's diagnosis of their child's capacity.

MARION M. MILLER

WHAT can the parent hope to know—and do—about intelligence tests for children? What use can he expect to make of the knowledge about his own particular child gained through these school agencies? What should his attitude be? How can he best cooperate? The intelligent and informed, though technically untrained, parent has a very real motive in wishing to learn all he can about a subject which gives promise of being so helpful in understanding and guiding his child.

The battery of tests to which children are exposed during their school career serves a variety of functions. In the case of non-public schools, tests adapted for the purpose can largely determine whether a candidate shall be admitted or rejected. After the child is enrolled, the test results can weight the decision regarding his grade placement. Achieve-

ment tests, performance tests and tests of special abilities, not to mention character and personality tests, all play their very considerable part in shaping his school career—yes, even his destiny beyond and apart from his life at school. No wonder then that parents are so actively concerned with this whole aspect of education, and are frequently puzzled by a technique in which they themselves have had no first hand experience or professional training, but which leads so easily to misconceptions, and has such a far-reaching effect upon their children.

It is possible to comprehend what a test signifies without ever having administered one. Just as the busy clinician depends upon the laboratory to analyze blood and prepare x-ray plates, utilizing to the full the resources it furnishes him for careful study of figures and negatives, and drawing his

conclusions from them, so the parents can learn much without being personally trained in testing.

In discussing how parents can utilize to best advantage the contributions of psychologists who have been working with mental measurements, one must mention first the attitude which the parent should adopt toward this entire field. In all too many cases the parents' reaction is emotional rather than intellectual. The fact that a child is subjected to a mental test arouses in some parents a defiant or over-protective feeling as though the child were being attacked with dangerous weapons against which he had no defense. As an antithesis to this extreme we find the parent whose outlook is equally colored by emotion, and who views the mental test as a panacea for all difficulties which the child encounters in and out of school. "Where can I have my child tested?" is a frequent question asked by such parents, as though the test itself had peculiar efficacy to make over a child's endowment and personality. Actually what the test can accomplish is to give parent and teacher an objective basis for discussion and for wise guidance. Teachers' judgments—and still more parents' judgments—are necessarily colored by personal and subjective elements. That these may be unconscious does not make them any the less real.

Portrait of a Normal Child

A PICTURE of a given child arrived at by means of well selected and properly administered tests divests the entire discussion and appraisal of his problems and possibilities of these emotional factors, and thereby enables both parent and teacher to gain a clearer view of his needs along educational lines — considering education in its broadest terms. Wherever doubt exists as to the grade placement of a child the parent must recognize that a test can aid materially in arriving at a fair estimate of his ability. In many cases of behavior difficulty, inattentiveness, uneven classroom progress, the mental test is our surest step toward adequate diagnosis.

Difficulties have arisen in some schools because parents, and in certain cases, teachers too, with all too little knowledge of the limitations of tests, have become either unduly vain or unnecessarily depressed because of a child's rating. In view of this, in many instances the schools have categorically refused to divulge specific test results; to parents to whom the whole idea was still new and strange, this seemed added ground for suspicion of the entire procedure. And yet the schools are actually safeguarding both parent and child. The trained

psychologist takes test findings for what they are, no more and no less; and so is not likely to read too much into them, or to fail to make allowances. To the parent, less experienced in such matters, this is difficult if not impossible. Fathers and mothers have a right to know—and a very great need to know—in what direction the child's capacities show greatest promise and greatest need. But there is, ordinarily little value to the parent in knowing an exact test score. Whether John's rating is 117 or 126 is of academic interest only, and will make very little difference in his life either at school or elsewhere. To know, however, that John, though he is failing in one or more school subjects, is not the dullard that he has been thought to be, but is actually in the "very bright" group, can be helpful to his parents. Many children have become inured or resigned to "leading the rear" because they have accepted an opinion of their capacities, based on actual achievement alone. Children who, in spite of superior mentality, are emotionally handicapped have often presented problems of school failure. Both may be enormously helped to successful adjustment through a more scientific estimation of their powers. Objective tests which time after time give similar results can be very convincing. They will challenge and encourage both the parents and the child whose performance is far below his capacity. They can also, happily by indicating special talents and aptitudes, point the way to more effective training for the less gifted child which will lead to greater satisfaction, and will protect him from the disastrous effect of constant unjust demands.

Clinical Readings in Capacity

THE discrepancy often existing between a child's school achievement and what his I Q would lead one to expect is not infrequently a difficult fact for parents to understand. Whereas there are some children whose mental rating is considerably lower than one would be led to expect by their academic standing, the majority of discrepancies are of the contrary character; children whose mentality is adequate or superior are frequently found, nevertheless, not to be working up to their full capacity. The diagnostic value of the test in such cases cannot be overestimated. The parent would do well to think of the psychologist's interpretation of mental tests much as he regards a physician's reading of a clinical thermometer; both give fairly accurate clues to certain conditions within the organism and clarify one's reasoning regarding the symptoms and manifestations.

Study Group Department

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This study material is presented for the use of interested individuals or groups having the topic of this issue on their regular programs. The study outline is based on the articles. Questions and discussion are taken from study group records.

PARENTS' QUESTIONS AND DISCUSSION

What is the value of the mental test?

THIS type of test has its greatest value in sifting out, for educational purposes, the normal from the subnormal, the educable from those needing special care. Beyond this, some of the subtleties of the test results may be interpreted for more specific uses, for example as a guide in the school placement or grading of a child. Sometimes the test results may point the way to emphasis on certain types of education for a particular child. In the light of the I Q measurement the school and the parent have surer grounds upon which to base the demands they make upon the child.

What is meant by the I Q?

THE I Q or intelligence quotient is a measurement of intellectual capacity. It is arrived at by comparing the child's chronological age with his mental age as indicated by specific standardized tests. For example, if a child of exactly five years (60 months) answers the questions on the intelligence test which normally should be correctly answered by a child of 90 months, his I Q would be $\frac{90}{60}$ or 150. If, on the other hand his mental age is the same as his chronological age in months, then he is said to have exactly what is called normal intelligence, $\frac{60}{60}$ —indicated by the I Q of 100. The same is true in the descending scale where mental age is lower than chronological age.

How can one recognize genius in a child?

"GENIUS," as it is popularly understood, is a combination of qualities, abilities or special gifts which cannot be measured in exact terms. It is possible to measure certain types of

aptitude or capacity—such as musical aptitude—but whether or not there are present the other qualities implied in what we usually describe as "genius" will appear only with opportunities in a propitious environment.

The use of the term "genius" in the Binet scale has a specific meaning not to be confused with the common acceptance of the word. The child whose I Q is over 130 is technically rated in the "genius class"—but this is a measure only of his intellectual capacity. It sometimes happens that a child of low I Q may have special abilities along certain lines not measured by these tests. In any case parents would do well to avoid the use of labels such as "genius," "moron" and other test terms, since these are useful only for purposes of research and educational classification.

What does it mean when a child has a high I Q and a very poor school report?

SUCH a discrepancy indicates a need for careful scrutiny of both the school and the home situation. It may be that the child is not interested in his work, either because it is not sufficiently stimulating or challenging to his superior intelligence, or for some less obvious reason. He may, despite his high general intelligence, have one special disability (perhaps in arithmetic or some other tool subject) which is discouraging him and causing him to function poorly all along the line. Or, the reverse of this, he may be intensely interested in one type of work, neglecting all else for it.

There are also emotional factors to be considered: his relationships with classmates and teachers, and his adjustment in his home and family relationships. Perhaps too much is being expected of him and he is unconsciously rebelling against unfair pressure. Since any of these or still other factors may be in-

volved, it is important that parent and teacher confer about the situation and cooperate closely.

Isn't the little child likely to be made nervous or self-conscious by the many tests to which he is subjected in so-called "experimental" schools?

IF the tests are administered by skilful persons they involve no strain for the child. From the child's point of view the test should be not an "examination" of himself, but a game which is quite impersonal and enjoyable. He should not be made aware that he is being tested, nor need he be conscious of the test results—and since the test requires of him no previous preparation, he has no cause for anxiety or nervousness. The attitude of the tester is one of helpful encouragement rather than of challenge, as in the traditional "examination," so that the child has every reason to come away from the experience feeling well pleased with his performance.

What may be done if a child is at a school where intelligence tests are not used?

SUCH tests are not absolutely essential, though they are found useful as guides by most progressive schools. Where they are not given there would seem to be no reason to go outside the school to get the tests unless there is an indication that something is amiss in the child's adjustment. Unexplainable behavior difficulties, restlessness or instability, poor school work—any of these might be symptomatic of faulty grading, and where these appear it would be well to have the I Q tested by some accredited psychologist or behavior clinic. Such difficulties can be met more intelligently if we know what the child's mental capacity is and what we have a right to expect of him.

A child of five was to take the tests for admission to a certain school. When he was brought to the psychologist he obdurately refused to answer her questions, so that she was unable to complete the test. Since the school insists upon these tests for entrance, what may be done in the situation?

IT should be possible to bring the child again, after an interval of some days, during which time the mother may build up in the child a more satisfactory attitude toward the whole matter. It is possible that she herself was somewhat worried or concerned about the outcome of the tests, since

these would determine the child's acceptability at this school, and the child may have caught her feeling of anxiety. She might try to approach the second visit in a spirit of confidence, as a happy adventure. Possibly, too, there was some unexplainable personality block between tester and child, and some other person might give the tests with no difficulty whatever on the child's second visit.

Is the school justified in withholding test results from parents, leaving them uninformed of the child's I Q?

THERE need be no question of telling or withholding the I Q rating. The problem is rather that of educating parents concerning the significance and right use of this information. The parent who would be upset by the quotation of a low I Q or overconfident in the case of a high one would be just as likely to misinterpret or misuse what is implied in the skipping or repeating of a grade. Parents can be helped to understand the significance and the limitations of the I Q rating and its possible uses as an educational guide.

What precautions should be taken in a home where two children have widely divergent I Q's?

IN such a situation it is extremely important for parents to guard against placing all their emphasis on intellectual attainments and pursuits. Each child should be given encouragement and opportunities for success along the lines of his own special abilities, whatever these may be. Especially where one or both parents are themselves highly endowed they must come to an honest acceptance of the child who is less intelligent, and also help the children to respect and value one another's contributions. Above all there must be no comparisons, either expressed or implied.

A third-year high school student whose I Q is just about average, has a fixed ambition to enter college and study law. He has managed just to "pass" in his subjects by virtue of much effort, but the school psychologist feels that the effort involved in college entrance would be disproportionate to the results for him. Should he be permitted to attempt college examination at risk of failure or overstrain?

TO advise this boy one would have first to consider what factors may be involved in his insistence upon college. Is his ambition born of his

own real interest in practicing law, or is it rather an undefined pressure from others? Does he feel called upon to measure up to a certain intellectual or social tradition? Has he idealized this one profession so that he has lost perspective in counting the costs of attainment? Has he any appreciation of the interests and rewards of other kinds of work? Perhaps the desire to go to college represents a personality need which can be satisfied in other ways.

But if he seems to have a genuine interest in this kind of study it is possible that the boy's own drive, together with personality assets, may carry him through the difficulties, and his interest in the subject compensate for the additional strain. Every precaution should be taken, however, to guard him from a sense of guilt or inferiority if he fails to reach his goal, and to keep the way open for a change of plan and interest.

STUDY MATERIAL: MEASURING CHILDREN'S CAPACITIES

Topical Outline

- I. FUNCTIONS OF THE MENTAL TEST

1. What purpose does a mental test fulfill

—for the normal child

—for the problem child

2. What special information can a test give

—regarding general ability

—regarding special aptitudes

—regarding personality
- II. HISTORY AND DEVELOPMENT OF DIFFERENT TYPES OF TESTS

1. Tests of general intelligence, as

—Binet-Simon

—Kuhlmann

2. Performance, as

—Pintner-Patterson

—Merrill-Palmer
- III. LIMITATIONS OF TESTS

1. Correlation of various abilities

2. Language familiarity

3. Home background and setting

4. Emotional difficulties of the child

5. Need of rapport between child and tester
3. Special aptitudes, as

—Stenquist

—Seashore

4. Group tests

5. Tests of emotional stability, personality and character
- Problems for Discussion

1. In an ideal school system, would every child be tested? When? With what tests? For what reasons?

2. Teachers' judgments of children's ability are not always substantiated by test results. What accounts for this discrepancy?

3. Explain the following terms in relation to mental tests: reliability, validity, constancy.

4. Why are the skill and training of the person giving the tests important factors in their reliability?

5. What implications can you see for eugenics, in knowledge gained from mental testing?

6. What modifications may be made in the family environment when parents realize that there is wide discrepancy in native capacity between their children?

7. What bearing may the findings of intelligence tests have upon parental plans and ambitions?

8. In considering their children's training, to what extent should parents take into consideration the findings available from such tests as have been given?

Reference Reading

Educational Achievement in Relation to Intelligence	
By Charles W. St. John. Harvard University Press.	219 pp. 1930
Gifted Children: Their Nature and Nurture	
By Leta S. Hollingworth. The Macmillan Co.	374 pp. 1926
A Handbook of Mental Tests	
By F. Kuhlmann. Warwick and York.	208 pp. 1922
The Intelligence of School Children	
By Lewis M. Terman. Houghton Mifflin Co.	317 pp. 1919
Intelligence Testing: Methods and Results	
By Rudolph Pintner. Henry Holt & Co.	355 pp. 2nd ed. 1931
The Kuhlmann-Binet Tests for Children of Pre-School Age	
By Florence L. Goodenough. University of Minnesota Press.	146 pp. 1928
The Measurement of Intelligence	
By Thorndike et al. Teachers College.	616 pp.
Measurement of Intelligence by Drawings	
By Florence L. Goodenough. World Book Co.	177 pp. 1926
Mental Measurement of Pre-School Children	
By Rachel Stutsman. World Book Co.	368 pp. 1931
Mental Tests	
By Frank N. Freeman. Houghton Mifflin Co.	503 pp. 1926
Psychology of Musical Talent	
By Carl Emil Seashore. Silver, Burdett & Co.	304 pp. 1919
Testing Intelligence and Achievement	
By A. Levine and L. Marks. The Macmillan Co.	399 pp. 1928
Tests and Measurements in Music	
By Jacob Kwalwasser. C. C. Birchard & Co.	146 pp. 1927

Book Reviews

Discovering Ourselves. By Edward A. Strecker and Kenneth E. Appel. The Macmillan Co., New York. 306 pp. 1931.

In an age when self-knowledge and self-understanding have become the order of the day, one comes across any number of books dealing with these endlessly interesting topics. Among the best of these is *Discovering Ourselves*.

From their wide experience in the field of nervous and mental diseases the authors offer sound advice for the layman amplified by illustrations and graphs. While the psychology of Strecker and Appel is colored by their leanings toward the Freudian School, nevertheless, it is not limited by Freud's terminology and implications. There is constant stress on the universality of mental and emotional trends which all too frequently become twisted and warped because of ignorance of the principles of mental hygiene. The by-ways from the normal to the pathological are clearly charted and guideposts are set up to keep the traveler from straying away from the highroad of normal living. Despite its faults of generalization, and even of exaggeration in the interest of driving its points home, it is a book worth careful reading for its constructive value in the understanding of personality difficulties.

V. A. J.

The Mental Development of the Child. By Karl Bühler. (Translated by Oscar Oeser.) Harcourt, Brace & Co., New York. 170 pp. 1930.

This translated fifth edition of Dr. Bühler's book is a useful condensation of the author's larger work, *Die geistige Entwicklung des Kindes*. It is intended as a basic "summary of modern psychological theory" for the use of students and teachers.

Beginning with a general consideration of theories of instinct, training and inheritance of intellectual qualities, Dr. Bühler traces the various developmental stages of early childhood: the development of language, of perceptions, of memory and imagination, and the evolution of thinking and of social behavior. Of interest for educators is a chapter on the development of drawing which summarizes the literature on this subject, and analyzes the psychological aspects of the child's approach to drawing, both as to techniques and forms of ex-

pression. An interesting contribution too, is a painstaking analysis of fairy tales and their relation to the child's imaginative life.

J. F.

Educational Achievement in Relation to Intelligence as Shown by Teachers' Marks, Promotions, and Scores in Standard Tests in Certain Elementary Grades. By Charles W. St. John. Harvard University Press. 219 pp. 1930.

In spite of much technical and statistical detail which may make this book difficult for the general reader, it offers to those parents with enough interest to pursue it an unusually clear and interesting description of the results of psychological and mental tests. Many of the questions asked by parents, as to what the tests do and do not show us regarding the child, here find answers. It makes it clear that while these tests give exceedingly useful indices of certain definite abilities and furnish the best basis we yet have for predicting future success, they do not measure general intelligence. Nor do they take into account qualitative differences and emotional reactions, or character traits such as industry, perseverance, energy, initiative, purposiveness or ideals. What is more, only conventional reactions in academic patterns can be tested by them, while originality, creative characteristics and personality cannot, because of the limitations necessarily set up in the interests of accuracy.

The first section gives a comprehensive description of psychological and educational tests. In Part II—a detailed statistical study—and in Part III—a series of six case studies of children whose achievement tests do not correlate positively with their I Q—the workings and limitations of the tests are illustrated in more detail. The closing section is devoted to Dr. St. John's inferences and suggestions concerning educational organization. The text is followed by an unusually rich bibliography. It is a reference book to which parents and those interested in parent education may turn for specific information.

H. E. B.

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TWO-DAY CONFERENCE of the CHILD STUDY ASSOCIATION of AMERICA

October 19-20
1931



New York
N. Y.

HOTEL PENNSYLVANIA Grand Ballroom

Mrs. Howard S. Gans will preside at all Monday sessions.

Monday, October 19—Morning Conference 10:00 A. M.

Research in Family Life

Chairman—Eduard C. Lindeman
Speakers—Rachel Stutsman Harry M. Shulman
Caroline B. Zachry Ruth Brickner, M.D.

— Afternoon Conference 2:30 P. M.

Social and Economic Changes: Their Effect Upon Man and Woman in the Marriage Relation

Chairman—Donald Young
Speakers—Robert S. Lynd Sidonie M. Gruenberg
(Other speakers to be announced)

— Dinner Meeting 7:30 P. M.

Social and Economic Changes: How Is the College Meeting Them?

Chairman—David Saville Muzzey William A. Neilson
Speakers—Nicholas Murray Butler (Other speakers to be announced)

ASSOCIATION HEADQUARTERS 221 West 57th Street, New York City

Tuesday, October 20—Morning Conference 10:00 A. M.

Survey of Significant Trends in Parent Education in the United States

Chairman—Cécile Pilpel
Speaker—Lois Hayden Meek
Brief reports of typical programs—
Ada Hart Arlitt Marian B. Nicholson
Doris Schumaker Evelyn E. Eastman
Margaret J. Quilliard Sadie-Vera Ginsberg
Elizabeth V. Robinson

— Afternoon Session 2:30 P. M.

Committee Work as a Project in Parent Education

Chairman—Mrs. Howard S. Gans
Committees of the Child Study Association

— Afternoon Session 4:00 P. M.

Summer Play Schools Committee—Round-Table Discussion Objectives in Summer Time Activity Programs

Presiding—Mrs. Fred M. Stein
Chairman—LeRoy E. Bowman

Registration: Members, presenting membership cards, \$.50
Accredited Students, \$.50 Non-Members, \$1.00

Dinner: \$3.50

In the Magazines

The Answer Is Education. By Newton D. Baker. *Journal of Adult Education*, June 1931.

"The kind of education that I have in mind, as the objective at which all the social agencies as well as the adult education movement should aim, is the kind that produces men and women who think." Mr. Baker emphasizes the inclusion of "current knowledge with the development of our time" in this type of education.

Are Parents Pulling Their Weight? By O. A. Wirsig. *School Executives Magazine*, July 1931.

An argument in favor of the public schools taking the initiative in parent education, by organizing study groups and by training leaders.

The Attempt to Understand. By Dorothy Canfield Fisher. *Journal of Adult Education*, June 1931.

Mrs. Fisher graphically contrasts a family situation of four generations past—its gropings and tragedies because of the lack of understanding in the care of children—with the present "attempt to understand" by means of child study and parent education.

The Demand for Psychological Counselors in the Public Schools. By Goodwin Watson. *School and Society*, June 27, 1931.

Training for a new profession—the psychological counselor for public school students—is interpreted, and the response to a circular letter sent to superintendents of schools as to the need for a counselor as staff member is reported.

The Family Center Summer Play School. By Lucy Retting. *American Childhood*, June 1931.

This article describes the work carried on in one of the summer play schools in New York City. The value of such a project to the children who attend and to their parents is discussed. (This reference was incorrectly given in the June issue of *CHILD STUDY*.)

Future Possibilities for Continuity Without Standardization in Curricula for Nursery School, Kindergarten and First Grade. *Childhood Education*, June 1931.

Three distinct contributions are offered on this topic. Patty Smith Hill, in her article, considers how to retain the flexibility of the nursery school

program essential in the child's growth and yet correlate the three age levels. E. Mae Raymond continues the discussion and contrasts the techniques used by the teachers of the nursery school with those of the kindergarten and first grade. Finally the development in mental growth of the kindergarten child as compared with the nursery school and first grade is presented by May Hill, who also emphasizes the need for kindergarten teachers to include in their preparation a rich background in natural science and social studies.

A General Information Test for Kindergarten Children. By Cathryn A. Probst. *Child Development*, June 1931.

Presenting a technique by which to evaluate the amount and type of general information possessed by children ranging from five years four months to six years. Experimental conditions, method and types of reaction response are described.

How to Establish Good Habits. By Helen T. Woolley. *The Parents' Magazine*, August 1931.

A discussion of the importance of early habit formation and the modification of undesirable habits; conscious and unconscious habit formation; and the need for securing the child's cooperation in changing undesirable habits.

The New Era, July 1931.

The contributions to this issue deal with geography; its relation to other school subjects as well as its human and social implications. Whereas formerly it was not considered a branch of learning at all, geography has gradually developed into a whole system of philosophy. "It provides a body of useful knowledge, offers machinery by which the mind can be trained, and inspires the spirit of culture."

Which Sports for the Adolescent? By Edwin F. Patton. *The Parents' Magazine*, August 1931.

The writer contends that "the best plan to follow in checking up your adolescent's sports-participation is first to see whether and where there is overdoing or underdoing." A list of "suitable" and "unsuitable" sports is given, and some definite activities are mentioned, their participation depending on how they are conducted and on the health condition of the individual.

Child Study Looks Forward

IT is a privilege to announce that the October issue of CHILD STUDY will be dedicated to Mrs. Anna Garlin Spencer. It will discuss "Key-notes of Family Living"—which Mrs. Spencer saw and helped others to see so clearly. Because of the particularly intimate significance of this discussion in the work of the Child Study Association of America, it has been decided to make this entirely a Staff Issue representative of the Association's point of view.

Parent education—according to a statement by Dorothy Canfield Fisher, quoted more fully in the news columns—has done more than any other kind of study to raise the quality of human living. As CHILD STUDY goes out into an ever-widening circle of homes, it has a well defined part to play in this almost revolutionary growth. It is challenged to bring constantly, to parents everywhere, whatever is soundest and most helpful in this rapidly growing field of knowledge and understanding.

More Help for the Studying Parent

THE new format assumed a year ago is the symbol of its progressive spirit. At the same time the scope of its editorial content was consciously broadened and its book review section and

news notes were enlarged. This editorial policy will be further developed during the year now beginning. One experiment of special significance is the new Study Group Department which makes its initial appearance on page 19 of this issue. This department will also include, in addition to the Parents' Questions and Discussion which has been one of the most valued features of CHILD STUDY, a Study Outline based on the articles of the issue and a Bibliography. The purpose of this study material is to furnish both individuals and groups a well integrated and organized foundation for their own work along the lines suggested by the topic.

Proposed for 1931-32

COMING numbers of CHILD STUDY reveal its ever-widening interests and its practical emphasis on actual problems in everyday life:

The Child's Reading
Are All Children Potential Artists?
Old Prescriptions and New Principles
The Use of Money
Discipline and Personality
Books for Parents—a Survey
What Children Think of Parents
Routines and Responsibilities

News and Notes

THE adult education movement has itself become adult, if one is to judge from the temper of the latest—the sixth—Annual Meeting of the American Association for Adult Education, which was held at the New School for Social Research in New York City, May 18-21, 1931.

"There was no argument as to what was or was not adult education. The program had expanded

to include thirty-two distinct types or phases of adult education as compared with thirteen when the plan for separating into special-interest groups was introduced two years ago. Quietly, but with full realization of the responsibility involved, adult education has taken over as its territory all the activities that can promote the mental, physical, and spiritual growth of mature men and women. In fact, one of the two prevailing themes that underlay the an-

nounced topics and titles on the program was keyed to the note struck by L. P. Jacks, in his phrase, 'The education of the whole man.'

"The other theme, as is inevitable in a gathering of thoughtful persons at the present time, was in a minor key, for which another Englishman—H. G. Wells—has given us a phrase, 'Human history becomes more and more a race between education and catastrophe.' It is well for us that men can learn, since men must learn if we are not to be utterly destroyed by forces of our own creation."

Mrs. Dorothy Canfield Fisher who was asked to present adult education from the standpoint of women says, "Education in general, and adult education in particular, are, I know, supposed not to be occasions for emotion, but there is one phase of adult education—the study of the principles underlying the care for children, and what that study has meant to women and mothers—of which it is difficult for a woman and a mother to speak coolly and dispassionately. If everyone does not kindle to a poignant thankfulness for what study for grown-ups has done in this department of human life, it is because he does not know what devastation and misery were caused by the ignorance of those earlier mothers who struggled with their mighty problems, before there was such a thing as adult education to come to their rescue.

"In the days before the effort to understand children cast its ray of light into family life, motherhood was a situation of tragedy, Greek in the implacable inscrutability of the natural forces, in the despairing helplessness of the human actors in it. . . . What stands between a modern mother and such depths of tragedy? . . . Nothing but a habit of study and learning. Nothing but a recognition of the immense value of understanding added to natural love.

"I have emphasized parental education because it seems to me that there can be no more complete symbol of what adult education may mean to human life than is given in the service of parental education to mothers. An elemental passion has endowed them with a stronger driving force than others have, and they have, it seems to me, more completely than any other adult students, assimilated the fruits of their study into the bones and blood of everyday life. Thought, study, new information, and the application of it have more dramatically, and hence more visibly, revolutionized their outlook. The clue of the value of understanding was laid in their hands as in that of all literate moderns by the idea of continuing thoughtful study into adult life, but it has led them farther and more clearly through the labyrinth of their part of human life. Study in adult years has

raised the quality of their living more definitely, and more universally, than is the case in any other department of the movement."

Mrs. Sidonie Matsner Gruenberg continues in somewhat of the same vein. "No plan of adult education is complete that does not take parents into account. . . . Recently the center of parent education shifted from the question of why parents want education to concrete problems of methodology. There are certain specific problems that distinguish this branch of adult education from all others. Parents who enroll for study courses differ widely in their social, cultural and educational backgrounds, in their ability, and their points of view. They are alike in being subject to the strong emotional stresses inherent in the parental relationships, and in being greatly influenced by prejudice and tradition in child rearing. They are, on the other hand, immediately and vitally interested in the subject matter of parent education, and therefore are eager students.

"The study-discussion group has proved a most effective agency of parent education. In group discussion, parents contribute, out of their own day-to-day experience, to a workable application of scientific principles. They face common difficulties together, they learn to see themselves objectively in their relation to their children. Through clearer perception of their own personalities they are helped to make a new orientation to life in general, and in particular to become more effective parents."

At the suggestion of Dr. Esther L. Richards, the following article was submitted to us by one of the most intelligent and successful teachers of the blind—herself blind since eighteen. Out of her personal experience and her twenty years as a teacher she has developed an inspiring and practical philosophy of education.

The question most vital to the life of the blind child is the determining of just in what and to what extent he differs from the child with sight. Undoubtedly he does differ; but, in the opinion of the writer, more harm is done by overemphasizing than by underestimating these points of difference. To fix definitely this line of demarcation is not an easy task. Often the causes which produce eye trouble are responsible also for other defects, and frequently a child's difficulty in doing or learning certain things is attributed to lack of sight when, in reality, it arises from an entirely different source. Then the question is further complicated by the degree of vision possessed; for here, as in most dis-

cussions of the subject the term blindness implies the inability to secure an education through the medium of ordinary print. There is a vast difference between the concepts of children who have never seen and those whose horizon is extended by five, fifteen, twenty or thirty per cent.

Most parents and some teachers are hampered in their judgment as to what should be expected of a blind child by a sentimental notion that he should not be forced into doing anything that is hard for him. The child with defective sight can be just as lazy, careless and stubborn as any other poorly trained youngster, and there is no reason why these faults should be condoned in him more than in his seeing brother.

On the other hand, there is the teacher who sometimes breaks into our ranks with an armful of lesson plans and a book on classroom management and proclaims that the class in geography or history must draw maps—and that, too, before many in the class have any real conception of what is meant by saying that the earth is a globe. Nowhere is very strict adherence to the basic principle of reaching the unknown always by way of the known more imperative than in the teaching of the blind child, and the teacher must never lose sight of the fact that many things daily seen by other children are wholly unfamiliar to him.

At the best, life offers no easy going for him who must walk its ways without sight; hence the blind child stands in particular need of discipline and of the careful training of his emotions. His methods of work are necessarily slower than those of seeing persons and his implements more clumsy; his work must be more accurate, for he is not so well able to rectify errors; if he later finds a place in the economic world, he will probably have to take less pay than his co-workers. What need, then, he will have of patience, perseverance, cheerfulness and conscientious attention to detail! He cannot afford to cripple his efficiency by being sorry for himself or by expecting others to make allowances for his limitations. Since he must often depend upon the sight of others to guide him in going about, to read required information from the printed page, and to assist him in a thousand ways, great and small, it is incumbent upon him to make himself as agreeable as possible, both in appearance and disposition.

Such an equipment for living cannot be bestowed along with a school diploma. It is a slow growth, fostered by years of intelligent training. The beginner must be laboriously taught many things in the simple processes of eating, dressing, and so on

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In the September **HYGEIA**

The question of removing tonsils and adenoids comes to every family sooner or later, it seems. An enlightening article on "Tonsils and Adenoids" urges attention, but warns against unnecessary operations—an attitude that appeals to parents.

Scarlet Fever creeps stealthily into the home. Are you prepared to meet such an emergency? This one article, telling how to care for a child who has scarlet fever and to protect other members of the household, is more than worth the price of a year's subscription. It is one of a series of articles on "Communicable Diseases in the Home."

Children are better off when they can carry through and accomplish results. Some parents may harm the mental health of their children by expecting too much of them. It is like giving a child a game that is too complicated for him. Even though your child is above the average, you will be interested in the article entitled "Mental Health of Children."

"Athletics and Your Boy" weighs the importance of the health of growing boys against the winning of the team. This is a responsibility which the home should not leave entirely to the school.

Defective vision or hearing means that the gateways of learning are obstructed. School authorities should discover and record such defects which interfere with school work, and report them to the parents whose responsibility it is to have these defects corrected. "What Is Being Done in School for Children's Eyes and Ears" discusses this health protective measure.

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that the seeing child acquires with little effort, largely by almost unconscious imitation of those around him. That he must be definitely taught these things, however, does not argue that he cannot do them. In short, the successful instruction of the intelligent blind child depends upon the clearness with which each thing to be taught is brought within the scope of his understanding, and the understanding with which he is helped to develop the full possibilities of his physical and mental power.

MINNIE HICKS.

An Age of Conventions

Ours is an age of conventions and conferences, and the State of Iowa has taken a step in line with this general trend. Over 650 persons attended the Fifth Annual Iowa State Conference on Child Development and Parent Education which was held in Iowa City from June 16 to 18. The program included, as in previous years, general lectures and round-table discussions. Symposia on "Problems in Preschool Education" and on "Selection of Local Leadership in Parent Education" were introduced as additional features.

Motion pictures of children in the Preschool Laboratories of the Iowa Child Welfare Research Station were shown daily at scheduled hours. Inspection tours of the Preschool Laboratories, including explanatory demonstrations of experimental materials used in studies being made at the Station, seemed to be an appreciated feature of the program.

A meeting of this nature is not the result of a few days or weeks of work but is a monument to the vision of a few earnest workers. Over five years ago a small group of representatives from eight organizations in Iowa whose programs included activities in child study and parent education met at the invitation of Dr. Bird T. Baldwin, first director of the Iowa Child Welfare Research Station, and formed the Iowa State Council for Child Study and Parent Education.

They planned the first Iowa State Conference for June, 1927. So enthusiastic was the response of those attending, that it seemed desirable to continue a gathering of this kind as an integral part of a state-wide program in child study and parent education. The second conference adhered to the general plan of the first, but closer coordination was attempted between the lectures and discussion meetings. Since emphasis had been placed up to this time on the child of preschool age, the third conference centered attention on the child during school age and adolescence. It included also a recreation session. At the

(Continued on page 29)

The Child Discovers America

North America. By Lucy Sprague Mitchell; illustrated by Kurt Wiese. The Macmillan Co., New York. 383 pp. \$3.50.

It must be thrilling to be a child today. The modern world is a wonderful place, and its wonders are being brought into closer and closer relationship to the child's everyday experiences. Because of this, a new type of literature for children has grown up—a literature which opens up to them new vistas of interesting facts, and interprets these and their underlying forces on the level of the child's understanding.

Lucy Sprague Mitchell has been a pioneer in this type of literature. Her earlier stories of the *Here and Now* have as their basis the child's own neighborhood. In her new book, *North America—The Land They Live in for the Children Who Live There*, she still further develops this thesis toward widening horizons. With the child's familiar environment still as her medium, Mrs. Mitchell builds up a conception of the whole, vast continent with all its human implications. The geographical aspects of the country and the relation of these to man's needs form the fundamental theme, fusing the separate stories into a harmonious whole.

Mrs. Mitchell calls her book a "first geography for young children" but her method of approach deals with various aspects of the country's life rather than with the geographical unit.

For example, her first group of chapters is on "Roads"; harbors, ocean roads, river roads, man-made roads, the new roads of the air—each chapter a thrilling narrative illustrating some special point. Finally the multiple threads are gathered together and summarized in more technical form.

The second section, on "Houses," includes stories of city planning, of San Francisco and its earthquake, of industrial and farm life as these have developed with respect to geographical location. The next grouping comprises "Masters of Animals and Plants." The stories lead us from the home farm to the tropical forests of Panama, to the wheat fields of Canada, and on to the lofty barren mountain trails of the Rockies. Thus presented, problems of vegetation, food distribution, conservation and climate become very real. Then, going on to "Gifts from Water and Earth," we find the redwood tree, the Colorado River with its irrigated valley, Mexican oil wells, and the icy splendor of the Arctic regions, all skilfully linked to the youthful reader's small experience. The book reaches its climax in "The Land and Its Workers" in which

rivers and mountains are peopled with busy men and women each fulfilling his part in a great task.

The author has intended this material for children of eight and over, but one is impelled to wonder whether the average boy or girl of eight would not be somewhat overwhelmed by this flood of information unaided by adult interpretation. It would seem that the subject matter is more nearly addressed to the reader of ten and over. Besides, the author has not hesitated to picture the shadows of reality and several of the stories present tragic aspects of life from which some of our younger children have been, perhaps, too carefully guarded. It is true, however, that a certain lyrical lilt carries one past the tragedy—and that Mrs. Mitchell's approach includes the guiding hand of the helpful adult. Her special note for parents and teachers offers useful advice and suggestions for activities.

While *North America* is designed as a geography reader, Mrs. Mitchell's passionate interest and the glow of her enthusiasm, no less than the rare literary quality of her prose, will give it a sure appeal as reading for sheer pleasure. Excellent format and dramatic illustrations by Kurt Wiese help to make the book an outstanding contribution to the whole field of children's literature. An index classifies the factual material under the traditional geographical topics. Maps and poetry make for a strange and delightful blending of realism and imagination. The whole is an achievement for which we are truly grateful both to Mrs. Mitchell and to her publishers.

MRS. HUGH GRANT STRAUS

News and Notes

(Continued from page 28)

fourth conference particular emphasis was placed on the round-table discussions on mental hygiene and on the child's social, physical and religious development.

With each conference, new features have been introduced as a result of expressed requests or implied interests. In its deliberations the chill of remoteness, too often associated in the mind of the layman with the contributions of experts only, gives place to enthusiastic participation by the parents and trained workers.

MARJORIE BURGESS and DOROTHY E. BRADBURY.

Play School
Teachers

The Child Study Association, through its study group department, committee work, publications and other activities, concerns itself with helping and guiding parents in all the various phases of child training. Its one direct contact with children, however, is through its Summer Play

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Schools Committee. In the capacity of advisor to the local directors and teachers of the Play Schools, this committee has unlimited opportunities of working with the parent, the child and the teacher.

The Play School child does make an appeal to the public but thought must also be given to the teacher on whom his comfort and happiness depends. It is she who finds out his abilities, his difficulties and his needs, and then helps him to get started on the right track. The Summer Play Schools Committee has always felt that giving encouragement to the teacher is one of its most important functions. With this in mind discussion meetings have been arranged for, bibliographies and lists prepared, and much time given to visiting the teacher at work.

For some years past, Summer Play Schools were conducted on a departmental basis. Each child enrolled was assigned to a group. This group went from room to room and from one activity to the next. More recently, however, it has seemed best to change this organization into a home room plan, where each teacher is assigned a room and a group of her own. In this home room the individual child can be better understood, and in such a room the group as a whole can carry a cooperative plan or unit of work. In order to help the Play School teacher make this change in organization, the Committee held informal discussion meetings throughout the winter and spring under professional leadership.

After the opening of the eight-weeks Play Schools season the auditorium at the Headquarters of the Child Study Association was used as an educational center for teachers. Here were assembled pictures, posters, books, pamphlets, monographs, nature materials, models of little theatres and an airport, children's musical instruments, anything in fact which was felt would be stimulating to the teacher who has little time to investigate for herself. The teacher was also given the opportunity for individual conferences with the leader in charge of this center. Through the cooperation of the Industrial Arts Department of Teachers College five different demonstrations on the following subjects have taken place: The Making of a Book, Block Printing, Paper Making, Methods of Handling Clay and Simple Weaving. Additional demonstrations of certain definite projects, such as the Japanese, Russian and newspaper units, have been held in the local Play Schools.

During the summer this educational center was used as a meeting place where school groups with a common interest, such as science, shared their questions and stories with other children of other schools. The possibilities of such a center are limit-

less, not only in demonstrating what can be done for the Play School teacher on the job, but by helping her to see the real challenge that the Summer Play Schools offer.

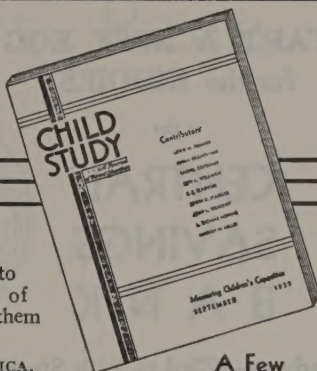
In Oklahoma the parent education department of the Okmulgee public school system promises an active program for the coming year in keeping with its aim to reach every mother and father of that city. Classes are to be given on various phases of child study, covering the complete age range, also on family relations and leadership training. Other groups will be held for those who prefer to widen their interests through reading and the discussion of books. Every encouragement is offered to group members to work out special projects in connection with the training of children and home management.

The Chicago Association for Child Study and Parent Education is planning three One-Day Conferences during the coming season—in contrast to the one Annual Meeting of former years. Other activities of the Association include classes in parent education, the book service which was only inaugurated this year, and the special projects of two field workers. Several groups are beginning new pieces of research in parent education.

The National Federation of Temple Sisterhoods has recently published a first and second series of fourteen lessons on the preschool child and the preadolescent. These outlines, sponsored by a special committee of the Federation of which Mrs. Saul Lavine is chairman, were prepared by Elsie H. Langsdorf, chairman of the St. Louis Council for Child Study and Parent Education.

The staff members of the Child Study Association will answer questions on child training over the radio every Friday afternoon at 2:30. Questions may be sent to WEAJ or the Association's Headquarters.

All railroads are offering reduced rates to those wishing to attend the Two-Day Conference which will be held by the Child Study Association on October 19 and 20 in New York. Arrangements for these rates may be made by applying to Association Headquarters.



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The Editors' Page



OTHER institutions vanish or become attenuated so as to be barely recognizable, but the family is rooted in needs so fundamental as to make it inconceivable that so long as civilization survives, it shall disappear or be short of its essential functions.

THE prevailing conceptions of the relationship of the parent and child continued to stress the possessive factor of the patriarchal organization long after that conception had become anachronistic. But we have finally come to realize that, though the duty of the parent to advise and to guide is still imperative, an attempt arbitrarily to pattern the child after a pre-determined image is not only futile but destructive of candor and respect, and that it is only in an atmosphere of reciprocal respect that affection develops fruitfully. The realization of these concepts is one of the determinants of modern family life.

AS social consciousness increases, parents realize that in one sense they are surrogates for society, since their children are as much members of the community as they are themselves. In accepting this responsibility, parents also increasingly realize that they have the right to ask for the community's assistance. Public education is so well established that we forget what an innovation it is. Parent education is now also being recognized as a mutual interest shared by the individual parent with his community.

TO these concepts Anna Garlin Spencer was one of the first to give effective expression and no one contributed to their promulgation with greater vision and effectiveness. For ourselves we can set no higher goal than to follow her example. As a tribute to her leadership and to the nobility of her life and in affectionate recognition of her enduring and inspiring friendship we dedicate this issue to her memory.

Bird S. Sans

CHILD STUDY

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E D U C A T I O N

OCTOBER 1931

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THE FORECAST FOR NOVEMBER

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Floyd Dell

THE PSYCHOANALYST LOOKS AT FAIRY TALES

Fritz Wittels

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Dorothy Baruch

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